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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,293	12/01/2003	Werner Beck	P02,0627-01	2944

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EXAMINER

ARTMAN, THOMAS R

ART UNIT	PAPER NUMBER
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2882

DATE MAILED: 05/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/725,293

Applicant(s)

BECK ET AL.

Examiner

Thomas R. Artman

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono (US 6,088,425) in view of Cecil (US 4,991,193).

Regarding claim 1, Ono discloses an X-ray unit (Fig. 11), including:

- a) an X-ray source 31 whose triggering for an X-ray shot can be blocked automatically upon reaching a thermal loading limit of the X-ray source 68,
- b) a control device that controls the X-ray source (Fig. 11), and
- c) a display 71 connected to the X-ray unit that displays an indication related to a period of time that the X-ray source requires in order to leave the thermal loading limit once the thermal loading limit has been reached.

Ono does not specifically disclose a control device for unblocking the X-ray source when it is blocked, and thus, there isn't any integrated break-time key disclosed.

Cecil teaches a break-time key 72 for an X-ray unit controller that is initiated to override a display timer (62, 64 and/or 66) that is integrated with the break-time key (via touchscreen 24,

Fig.2) where the display timer is related to blocking the X-ray unit. This allows the operator to continue X-ray imaging even though the X-ray source has reached a thermal loading limit (col.3, lines 15-20; col.5, lines 8-23, 37-40, 51-67). Such a break-time key is essential in a life-threatening situation where a doctor needs the results fast in order to take the necessary measures to keep the patient alive (col.1, lines 54-59; col.3, lines 45-55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for Ono to have a break-time key in order to unblock the X-ray source for the purpose of expediting the diagnostic imaging process in emergency situations, as taught by Cecil.

With respect to claim 2, both Ono and Cecil teach the practice of having the timers as countdown timers (col.14, lines 56-67 of Ono; countdown timer 66 of Cecil).

With respect to claim 3, both Ono and Cecil teach the practice of having text-based percentage showing the remaining time (item 71 of Fig.11 of Ono; col.5, lines 55-59 of Cecil).

Regarding claim 5, Ono discloses a display 71 for showing an indication related to a period of time that an X-ray source requires to leave a thermal loading limit once a thermal loading limit has been reached and a control unit for blocking the X-ray source (Fig.11).

Ono does not specifically disclose a control device for unblocking the X-ray source when it is blocked, and thus, there isn't a break-time key integrated with the display.

Cecil specifically teaches a break-time key 72 integrated with a timer display 66 (all part of touchscreen 24), where the timer is related to blocking the X-ray unit, and where the break-time key is initiated to override the timer in order to continue X-ray shots. This allows the operator to continue X-ray imaging even though the X-ray source has reached a thermal loading limit (col.3, lines 15-20; col.5, lines 8-23, 37-40, 51-67). Such a break-time key is essential in a life-threatening situation where a doctor needs the results fast in order to take the necessary measures to keep the patient alive (col.1, lines 54-59; col.3, lines 45-55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for Ono to have an integrated break-time key with the timer display in order to unblock the X-ray source for the purpose of expediting the diagnostic imaging process in emergency situations, as taught by Cecil.

With respect to claim 6, Cecil further teaches that the break-time key is on a touchscreen display 24.

With respect to claims 7 and 8, Cecil further teaches that the key is an integrated display chip of LEDs (basic touchscreen design).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ono and Cecil, as applied above to claim 1, in view of Siemens (Generator POLYDOROS).

Neither Ono nor Cecil specifically disclose that the display is a graphical display of the percentage of total time.

Siemens specifically teaches the common use of graphical displays as percentages of a total value of a parameter on pp.13-14. As is known in the art, graphical representations of data provides a much quicker means for a human to ascertain the meaning of data than through words or numbers. Graphical representations are used for a variety of visual aids, such as in meetings and even television advertisements.

It would have been obvious to one of ordinary skill in the art at the time the invention was made for Ono to display a graphical representation of a percentage of the total time in order for a human to quickly ascertain the meaning of the data, as is shown by Siemens and is known.

### ***Response to Arguments***

Applicant's arguments filed March 3<sup>rd</sup>, 2006, have been fully considered but they are not persuasive. Applicants assert that the combination of Ono and Cecil is too complicated for implementation and therefore not obvious. Further, Applicants assert that the control element and display of Cecil are not integrated in a common break-time key. The examiner respectively disagrees.

First, Applicants raise issues on pp.3-5 of the Response that simply do not exist. Both Ono and Cecil are CT X-ray scanners. For at least that reason, the compatibility of automated

control features is obvious. As can be seen in Fig.2 and the associated description, Cecil's implementation of an override function for a CT scanner is quite simple, with one timer display and one override key for the operator to use. All of the rest of the functions that Applicants allege would have to be performed by the operator are fully automated as is known in the art and as described in both Ono and Cecil. Thus, such issues have no bearing upon the obviousness of the combination of Ono and Cecil and merely cloud the issues at hand.

Ono has the identical timer as claimed for a CT device, that is, a timer that displays how long an X-ray tube is shut down due to thermal overload. Cecil has a similar timer to that of Ono, that is, a timer that displays how long before the x-ray source will be shut down due to thermal overload. Cecil then specifically teaches the practice of overriding such a timer in the form of a break-time key for allowing imaging to proceed in life-threatening situations despite the risk of thermal overload, and thus threatening the longevity, of the expensive X-ray tubes. Therefore, the skilled artisan would have modified the CT scanner of Ono with the override feature of the CT scanner of Cecil in order to provide the opportunity for the operator to place greater importance on saving the life of the patient rather than the x-ray tube, as taught by Cecil.

Therefore, Applicants arguments regarding the obviousness of the combination of Ono and Cecil are not persuasive.

Second, Applicants assert that the presence of the timer (display) and the override key (control element) on the same display (touchscreen 24 of Fig.2 of Cecil) does not meet the limitation that the "...display and the control element are integrated in a common break-time key." Again, the examiner respectfully disagrees. Since both the timer display 66 and the break-

time key 72 are on the same touchscreen, they are therefore “common” to the same interface device and are “integrated” with the same interface, and thus, to each other. Any further structural requirement is neither explicitly nor implicitly required by the claims. Therefore, the disclosure of Cecil provides a common, integrated break-time key.

Furthermore, even if this would not be the case, where the timer display 66 is displayed directly under the break-time key 72, it is clear that such a modification is an unobvious variant of the teachings of Cecil. No long-standing need in the art or unexpected results would be obtained by moving the display and key of Cecil closer together than they already are. As can be seen from Fig.2, the display of Cecil is uncluttered, having a few, pertinent displays and keys. As can further be seen from Fig.2, both features are on the same screen, which, according to Fig.1, is no bigger than a common computer monitor. Therefore, at most, the timer display and the break-time key are only 3 or 4 inches apart. Thus, it is neither confusing nor difficult for an operator to assess the information and react efficiently in an appropriate manner.

Further still, the small separation of Cecil’s display and touch-sensitive break-time key on the display provide an additional safety feature: many people tend to absent-mindedly touch a portion of the screen at or near the location of the information that the person is trying to read, particularly when pointing out the information to another observer. If the timer display and the touch-sensitive key occupy the same space on the screen, then it is likely that the operator may accidentally override the timer while simply trying to read the time.



*Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas R. Artman whose telephone number is (571) 272-2485. The examiner can normally be reached on 9am - 5:30pm Monday - Friday.

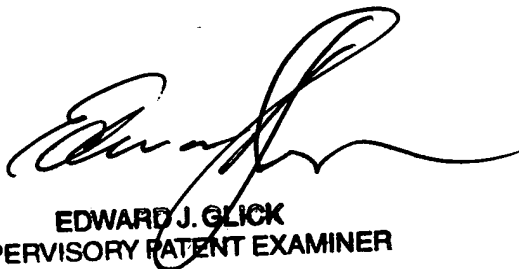
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2882

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thomas R. Artman  
Patent Examiner

*TRA*  
5/2/06

  
EDWARD J. GLICK  
SUPERVISORY PATENT EXAMINER